

Application No.: 10/566,926

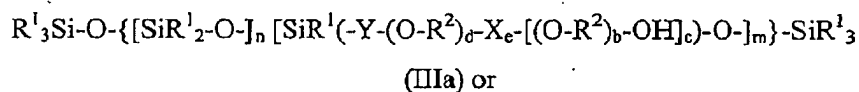
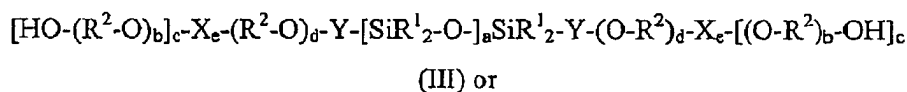
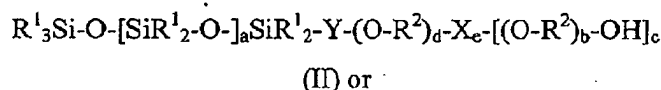
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**Amendments to the Claims:**

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

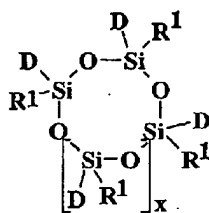
**Listing of Claims**

1. (cancelled)
2. (currently amended) A dental impression composition comprising:
  - a) at least one polydiorganosiloxane having at least two olefinically unsaturated groups as component (a),
  - b) at least one organohydrogenpolysiloxane as component (b),
  - c) at least one alkylsiloxane having at least one carbinol, carboxy or amino group as component (c),
  - d) at least one condensation cure compound as component (d) and
  - e) at least one addition cure precious metal catalyst as component (e); according to claim 1, characterized in that wherein component (c) contains at least one compound of the formula:



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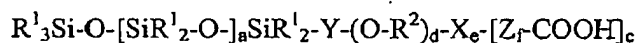
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(IIIb),

wherein X is a linear or branched hydrocarbon or an aryl residue that may contain an oxygen atom and/or an ether group with 6 to 14 C-atoms and a valency of c, Y is a linear or branched alkylene group with 1 to 10 C-atoms or a cycloalkyl group with 4 to 14 C-atoms, R<sup>1</sup> is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 6 to 14 C-atoms, R<sup>2</sup> is a linear or branched alkylene group that may contain a carbonyl group with 1 to 8 C-atoms, D is R<sup>1</sup> or -Y-(O-R<sup>2</sup>)<sub>d</sub>-X<sub>e</sub>-[(O-R<sup>2</sup>)<sub>b</sub>-OH]<sub>c</sub> with at least one residue -Y-(O-R<sup>2</sup>)<sub>d</sub>-X<sub>e</sub>-[(O-R<sup>2</sup>)<sub>b</sub>-OH]<sub>c</sub> per molecule, 1 ≤ a ≤ ~~10,000~~10,000, 0 ≤ b ≤ 500, 1 ≤ c ≤ 6, 0 ≤ d ≤ 500, e is 0 or 1, 0 ≤ n ≤ 500, 0 ≤ m ≤ 100 where m+n exceeds 5 and x is 0, 1, 2, 3, 4, 5 or 6.

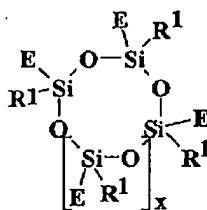
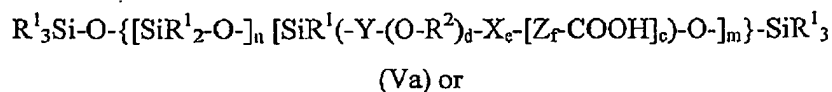
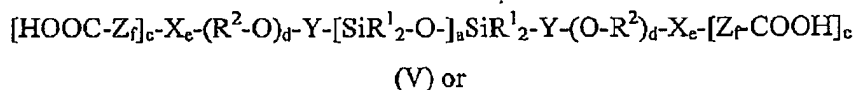
3. (currently amended) A dental impression composition comprising:
- a) at least one polydiorganosiloxane having at least two olefinically unsaturated groups as component (a),
  - b) at least one organohydrogenpolysiloxane as component (b),
  - c) at least one alkylsiloxane having at least one carbinol, carboxy or amino group as component (c),
  - d) at least one condensation cure compound as component (d) and
  - e) at least one addition cure precious metal catalyst as component (e); according to claim 1, characterized in that wherein component (c) contains at least one compound of the formula:



(IV) or

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(Vb),

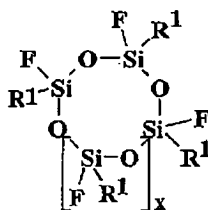
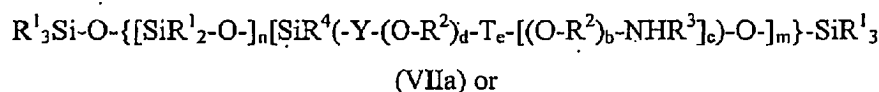
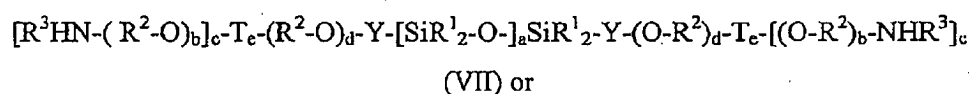
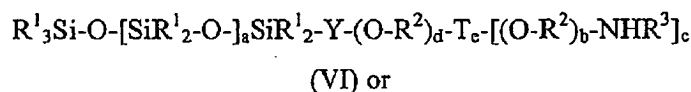
wherein X is a linear or branched hydrocarbon or an aryl residue that may contain an oxygen atom and/or an ether group with 6 to 14 C-atoms and a valency of c, Y is a linear or branched alkylene group with 1 to 10 C-atoms or a cycloalkyl group with 4 to 14 C-atoms, Z is a linear or branched alkylene or alkenylene or aryl group that may contain an ester group with 1 to 16 C-atoms, R<sup>1</sup> is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 4 to 14 C-atoms, R<sup>2</sup> is a linear or branched alkylene group that may contain a carbonyl group with 1 to 8 C-atoms, E is R<sup>1</sup> or -Y-(O-R<sup>2</sup>)<sub>d</sub>-X<sub>e</sub>-[Z-COOH]<sub>c</sub> with at least one residue -Y-(O-R<sup>2</sup>)<sub>d</sub>-X<sub>e</sub>-[Z-COOH]<sub>c</sub> per molecule, 1 ≤ a ≤ 10,000, 1 ≤ c ≤ 6, 0 ≤ d ≤ 500, e is 0 or 1, f is 0 or 1, 0 ≤ n ≤ 500, 0 ≤ m ≤ 100 where m+n exceeds 5 and x is 0, 1, 2, 3, 4, 5 or 6.

4. (currently amended) A dental impression composition comprising:
- a) at least one polydiorganosiloxane having at least two olefinically unsaturated groups as component (a).
  - b) at least one organohydrogenpolysiloxane as component (b).
  - c) at least one alkylsiloxane having at least one carbinol, carboxy or amino group as component (c).
  - d) at least one condensation cure compound as component (d) and

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e) at least one addition cure precious metal catalyst as component (c); according to claim 1, characterized in that  
wherein component (c) contains at least one compound of the formula:



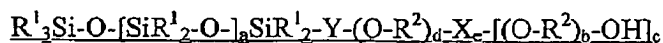
(VIIb),

wherein T is a linear or branched hydrocarbon or an aryl residue that may contain an oxygen atom and/or an ether group with 6 to 14 C-atoms and a valency of c, Y is a linear or branched alkylene group with 1 to 10 C-atoms or a cycloalkyl group with 4 to 14 C-atoms, R<sup>1</sup> is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 6 to 14 C-atoms, R<sup>2</sup> is a linear or branched alkylene group that may contain a carbonyl group with 1 to 8 C-atoms, F is R<sup>1</sup> or -Y-(O-R<sup>2</sup>)<sub>d</sub>-T<sub>e</sub>-[(O-R<sup>2</sup>)<sub>b</sub>-NHR<sup>3</sup>]<sub>c</sub> with at least one residue -Y-(O-R<sup>2</sup>)<sub>d</sub>-T<sub>e</sub>-[(O-R<sup>2</sup>)<sub>b</sub>-NHR<sup>3</sup>]<sub>c</sub> per molecule, R<sup>3</sup> is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 6 to 14 C-atoms or H, R<sup>4</sup> is R<sup>1</sup> or ~~Methoxymethoxy~~ or ~~Ethoxyethoxy~~, 1 ≤ a ≤ ~~10,000~~10,000, 0 ≤ b ≤ ~~10,000~~10,000, 1 ≤ c ≤ 6, 0 ≤ d ≤ 500, e is 0 or 1, 0 ≤ n ≤ 500, 0 ≤ m ≤ 100 where m+n exceeds 5 and x is 0, 1, 2, 3, 4, 5 or 6.

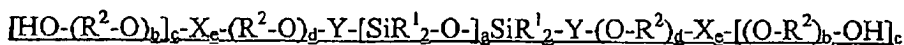
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5. (currently amended) ~~A~~The composition of claim 2, wherein the composition according to one of the claim 1, characterized in that it contains one or more adjuvants as component (f).
6. (currently amended) ~~A~~The composition of claim 2, wherein the composition according to one of the claim 1, characterized in that it contains the following components in the following amounts:
- a) 2.5 to 40 weight percent of component (a),
  - b) 0.2 to 10 weight percent of comcomponent (b),
  - c) 0.5 to 8 weight percent of component (c),
  - d) 0.1 to 7 weight percent of component (d),
  - e) 0.05 to 4 weight percent of component (e), based on elemental Pt, and
  - f) 31 to 96.65 weight percent adjuvants as component (f),
- wherein the components add up to 100 weight percent.
7. (currently amended) A two part dental impression system comprising parts A and B, wherein part A comprises:
- a) at least one polydiorganosiloxane having at least two olefinically unsaturated groups as component (a),
  - b) at least one organohydrogenpolysiloxane as component (b), and
  - c) at least one alkylsiloxane having at least one carbinol, carboxy or amino group as component (c), wherein component (c) contains at least one compound of the formula:



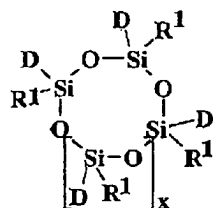
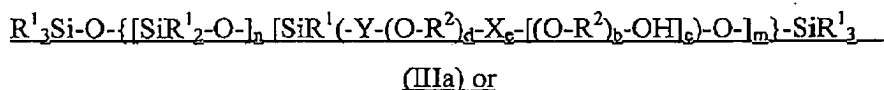
(II) or



(III) or

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wherein X is a linear or branched hydrocarbon or an aryl residue that may contain an oxygen atom and/or an ether group with 6 to 14 C-atoms and a valency of c, Y is a linear or branched alkylene group with 1 to 10 C-atoms or a cycloalkyl group with 4 to 14 C-atoms, R<sup>1</sup> is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 6 to 14 C-atoms, R<sup>2</sup> is a linear or branched alkylene group that may contain a carbonyl group with 1 to 8 C-atoms, D is R<sup>1</sup> or -Y-(O-R<sup>2</sup>)<sub>d</sub>-X<sub>e</sub>-[(O-R<sup>2</sup>)<sub>b</sub>-OH]<sub>c</sub> with at least one residue -Y-(O-R<sup>2</sup>)<sub>d</sub>-X<sub>e</sub>-[(O-R<sup>2</sup>)<sub>b</sub>-OH]<sub>c</sub> per molecule, 1 ≤ a ≤ 10,000, 0 ≤ b ≤ 500, 1 ≤ c ≤ 6, 0 ≤ d ≤ 500, e is 0 or 1, 0 ≤ n ≤ 500, 0 ≤ m ≤ 100 where m+n exceeds 5 and x is 0, 1, 2, 3, 4, 5 or 6;

and part B comprises:

- d) at least one condensation cure component as component (d) and
- e) at least one addition cure precious metal catalyst as component (e).

8. (cancelled)

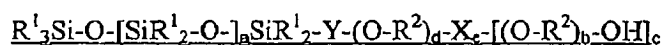
9. (currently amended) A The composition according to claim 7, characterized in that wherein part A contains the following components in the following amounts:

- ai) 8 to 25 % by weight of component (a),
- bii) 1 to 10 weight percent of component (b),

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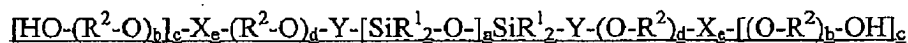
- eiii) 0.5 to 10 weight percent of component (c) and  
 div) 55 to 90.5 weight percent of adjuvants,  
 wherein the components add up to 100 weight percent.
10. (currently amended) ~~A~~The composition according to claim 7, characterized in that  
wherein part B contains the following components in the following amounts:  
 ai) 0.5 to 10 weight percent of component (d),  
 bij) 0.1 to 5 weight percent of component (e), based on elemental Pt, and  
 eiii) 85 to 99.4 weight percent of adjuvants,  
 wherein the components add up to 100 weight percent.
11. (currently amended) ~~A~~The composition of claim 6, wherein the according to claim 1,  
~~characterized in that it contains at least one~~ adjuvant is selected from the group consisting  
 of inert carrier materials, inhibitors, fillers, pigments or solvents.
12. (currently amended) A method for the preparation of a dental impression composition,  
said method comprising the step of thoroughly mixing the following components in any  
order: according to claim 1, characterized in that  
 a) at least one polydiorganosiloxane having at least two olefinically unsaturated  
 groups as component (a),  
 b) at least one organohydrogenpolysiloxane as component (b),  
 c) at least one alkylsiloxane having at least one carbinol, carboxy or amino group as  
 component (c),  
 d) at least one condensation cure catalyst as component (d) and  
 e) at least one addition cure precious metal catalyst as component (e);  
wherein component (c) contains at least one compound of the formula:



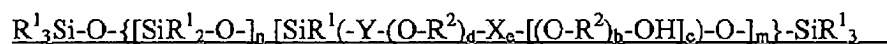
(II) or

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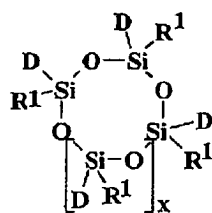
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(III) or



(IIIa) or



(IIIb)

wherein X is a linear or branched hydrocarbon or an aryl residue that may contain an oxygen atom and/or an ether group with 6 to 14 C-atoms and a valency of c, Y is a linear or branched alkylene group with 1 to 10 C-atoms or a cycloalkyl group with 4 to 14 C-atoms, R<sup>1</sup> is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 6 to 14 C-atoms, R<sup>2</sup> is a linear or branched alkylene group that may contain a carbonyl group with 1 to 8 C-atoms, D is R<sup>1</sup> or -Y-(O-R<sup>2</sup>)<sub>d</sub>-X<sub>e</sub>-[(O-R<sup>2</sup>)<sub>b</sub>-OH]<sub>c</sub> with at least one residue -Y-(O-R<sup>2</sup>)<sub>d</sub>-X<sub>e</sub>-[(O-R<sup>2</sup>)<sub>b</sub>-OH]<sub>c</sub> per molecule, 1 ≤ a ≤ 10,000, 0 ≤ b ≤ 500, 1 ≤ c ≤ 6, 0 ≤ d ≤ 500, c is 0 or 1, 0 ≤ n ≤ 500, 0 ≤ m ≤ 100 where m+n exceeds 5 and x is 0, 1, 2, 3, 4, 5 or 6.

are thoroughly mixed.

13-17. (cancelled)

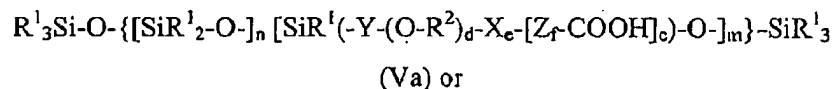
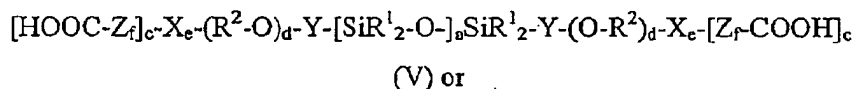
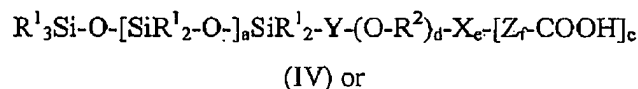
18. (new) The composition of claim 3, wherein the composition contains one or more adjuvants as component (f).



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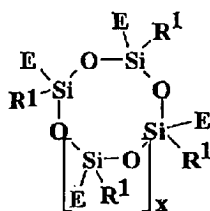
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19. (new) The composition of claim 3, wherein the composition contains the following components in the following amounts:
- a) 2.5 to 40 weight percent of component (a),
  - b) 0.2 to 10 weight percent of component (b),
  - c) 0.5 to 8 weight percent of component (c),
  - d) 0.1 to 7 weight percent of component (d),
  - e) 0.05 to 4 weight percent of component (e), based on elemental Pt, and
  - f) 31 to 96.65 weight percent adjuvants as component (f),
- wherein the components add up to 100 weight percent.
20. (new) A two part dental impression system comprising parts A and B, wherein part A comprises:
- a) at least one polydiorganosiloxane having at least two olefinically unsaturated groups as component (a),
  - b) at least one organohydrogenpolysiloxane as component (b), and
  - c) at least one alkylsiloxane having at least one carbinol, carboxy or amino group as component (c),
- wherein component (c) contains at least one compound of the formula:



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(Vb),

wherein X is a linear or branched hydrocarbon or an aryl residue that may contain an oxygen atom and/or an ether group with 6 to 14 C-atoms and a valency of c, Y is a linear or branched alkylene group with 1 to 10 C-atoms or a cycloalkyl group with 4 to 14 C-atoms, Z is a linear or branched alkylene or alkenylene or aryl group that may contain an ester group with 1 to 16 C-atoms, R<sup>1</sup> is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 4 to 14 C-atoms, R<sup>2</sup> is a linear or branched alkylene group that may contain a carbonyl group with 1 to 8 C-atoms, E is R<sup>1</sup> or  $-Y-(O-R^2)_d-X_e-[Z_f-COOH]_e$  with at least one residue  $-Y-(O-R^2)_d-X_e-[Z_f-COOH]_e$  per molecule,  $1 \leq a \leq 10,000$ ,  $1 \leq c \leq 6$ ,  $0 \leq d \leq 500$ , e is 0 or 1, f is 0 or 1,  $0 \leq n \leq 500$ ,  $0 \leq m \leq 100$  where  $m+n$  exceeds 5 and x is 0, 1, 2, 3, 4, 5 or 6;

and part B comprises:

- d) at least one condensation cure component as component (d) and
- e) at least one addition cure precious metal catalyst as component (e).

21. (new) The composition according to claim 20, wherein part A contains the following components in the following amounts:

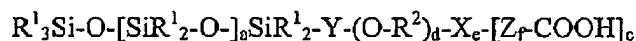
- i) 8 to 25 % by weight of component (a),
- ii) 1 to 10 weight percent of component (b),
- iii) 0.5 to 10 weight percent of component (c) and
- iv) 55 to 90.5 weight percent of adjuvants,

wherein the components add up to 100 weight percent.

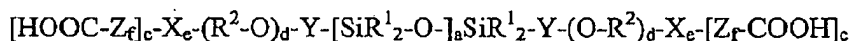
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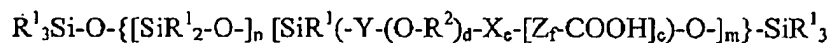
22. (new) The composition according to claim 20, wherein part B contains the following components in the following amounts:
- i) 0.5 to 10 weight percent of component (d),
  - ii) 0.1 to 5 weight percent of component (e), based on elemental Pt, and
  - iii) 85 to 99.4 weight percent of adjuvants,
- wherein the components add up to 100 weight percent.
23. (new) The composition of claim 19, wherein the adjuvant is selected from the group consisting of inert carrier materials, inhibitors, fillers, pigments or solvents.
24. (new) A method for the preparation of a dental impression composition, said method comprising the step of thoroughly mixing the following components in any order:
- a) at least one polydiorganosiloxane having at least two olefinically unsaturated groups as component (a),
  - b) at least one organohydrogenpolysiloxane as component (b),
  - c) at least one alkylsiloxane having at least one carbinol, carboxy or amino group as component (c),
  - d) at least one condensation cure catalyst as component (d) and
  - e) at least one addition cure precious metal catalyst as component (e);
- wherein component (c) contains at least one compound of the formula:



(IV) or



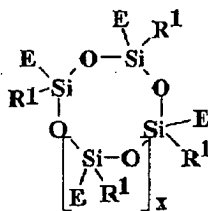
(V) or



(Va) or

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(Vb),

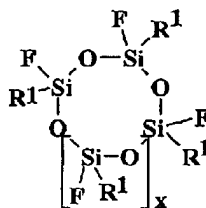
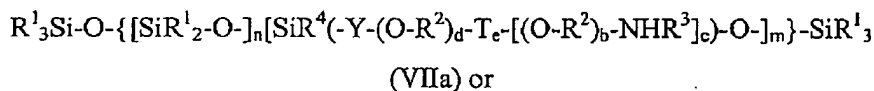
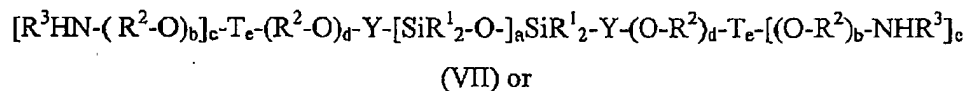
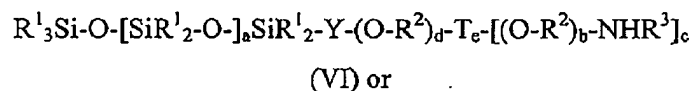
wherein X is a linear or branched hydrocarbon or an aryl residue that may contain an oxygen atom and/or an ether group with 6 to 14 C-atoms and a valency of c, Y is a linear or branched alkylene group with 1 to 10 C-atoms or a cycloalkyl group with 4 to 14 C-atoms, Z is a linear or branched alkylene or alkenylene or aryl group that may contain an ester group with 1 to 16 C-atoms, R<sup>1</sup> is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 4 to 14 C-atoms, R<sup>2</sup> is a linear or branched alkylene group that may contain a carbonyl group with 1 to 8 C-atoms, E is R<sup>1</sup> or -Y-(O-R<sup>2</sup>)<sub>d</sub>-X<sub>e</sub>-[Z<sub>f</sub>-COOH]<sub>e</sub> with at least one residue -Y-(O-R<sup>2</sup>)<sub>d</sub>-X<sub>e</sub>-[Z<sub>f</sub>-COOH]<sub>e</sub> per molecule, 1 ≤ a ≤ 10,000, 1 ≤ c ≤ 6, 0 ≤ d ≤ 500, e is 0 or 1, f is 0 or 1, 0 ≤ n ≤ 500, 0 ≤ m ≤ 100 where m+n exceeds 5 and x is 0, 1, 2, 3, 4, 5 or 6.

25. (new) The composition of claim 4, wherein the composition contains one or more adjuvants as component (f).
26. (new) The composition of claim 4, wherein the composition contains the following components in the following amounts:
  - a) 2.5 to 40 weight percent of component (a),
  - b) 0.2 to 10 weight percent of component (b),
  - c) 0.5 to 8 weight percent of component (c),
  - d) 0.1 to 7 weight percent of component (d),
  - e) 0.05 to 4 weight percent of component (e), based on elemental Pt, and
  - f) 31 to 96.65 weight percent adjuvants as component (f),
 wherein the components add up to 100 weight percent.

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27. (new) A two part dental impression system comprising parts A and B, wherein part A comprises:
- at least one polydiorganosiloxane having at least two olefinically unsaturated groups as component (a),
  - at least one organohydrogenpolysiloxane as component (b), and
  - at least one alkylsiloxane having at least one carbinol, carboxy or amino group as component (c),
- wherein component (c) contains at least one compound of the formula:



(VIIb),

wherein T is a linear or branched hydrocarbon or an aryl residue that may contain an oxygen atom and/or an ether group with 6 to 14 C-atoms and a valency of c, Y is a linear or branched alkylene group with 1 to 10 C-atoms or a cycloalkyl group with 4 to 14 C-atoms, R<sup>1</sup> is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 6 to 14 C-atoms, R<sup>2</sup> is a linear or branched alkylene group that may contain a carbonyl group with 1 to 8 C-atoms, F is R<sup>1</sup> or -Y-(O-R<sup>2</sup>)<sub>d</sub>-T<sub>e</sub>-[(O-

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$R^2)_b-NHR^3]_c$  with at least one residue  $-Y-(O-R^2)_d-Te-[(O-R^2)_b-NHR^3]_c$  per molecule,  $R^3$  is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 6 to 14 C-atoms or H,  $R^4$  is  $R^1$  or methoxy or ethoxy,  $1 \leq a \leq 10,000$ ,  $0 \leq b \leq 10,000$ ,  $1 \leq c \leq 6$ ,  $0 \leq d \leq 500$ ,  $e$  is 0 or 1,  $0 \leq n \leq 500$ ,  $0 \leq m \leq 100$  where  $m+n$  exceeds 5 and  $x$  is 0, 1, 2, 3, 4, 5 or 6;

and part B comprises:

- d) at least one condensation cure component as component (d) and
- e) at least one addition cure precious metal catalyst as component (e).

28. (new) The composition according to claim 27, wherein part A contains the following components in the following amounts:

- i) 8 to 25 % by weight of component (a),
- ii) 1 to 10 weight percent of component (b),
- iii) 0.5 to 10 weight percent of component (c) and
- iv) 55 to 90.5 weight percent of adjuvants,

wherein the components add up to 100 weight percent.

29. (new) The composition according to claim 27, component Wherein part B contains the following components in the following amounts:

- i) 0.5 to 10 weight percent of component (d),
- ii) 0.1 to 5 weight percent of component (e), based on elemental Pt, and
- iii) 85 to 99.4 weight percent of adjuvants,

wherein the components add up to 100 weight percent.

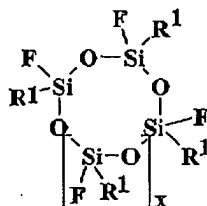
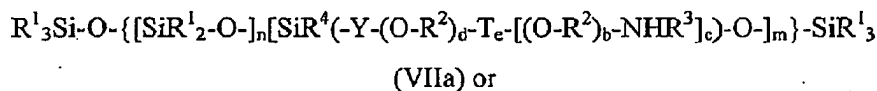
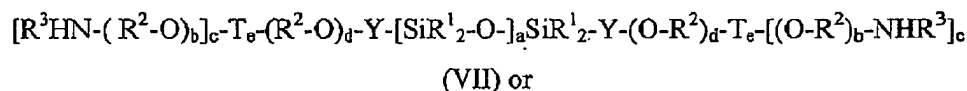
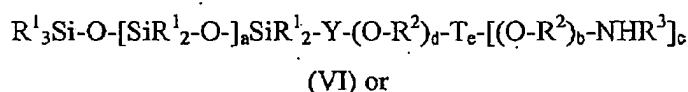
30. (new) The composition of claim 26, wherein the adjuvant is selected from the group consisting of inert carrier materials, inhibitors, fillers, pigments or solvents.

31. (new) The method for the preparation of a dental impression composition, said method comprising the step of thoroughly mixing the following components in any order:

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- a) at least one polydiorganosiloxane having at least two olefinically unsaturated groups as component (a),
  - b) at least one organohydrogenpolysiloxane as component (b),
  - c) at least one alkylsiloxane having at least one carbinol, carboxy or amino group as component (c),
  - d) at least one condensation cure catalyst as component (d) and
  - e) at least one addition cure precious metal catalyst as component (e);
- wherein component (c) contains at least one compound of the formula:



(VIIb),

wherein T is a linear or branched hydrocarbon or an aryl residue that may contain an oxygen atom and/or an ether group with 6 to 14 C-atoms and a valency of c, Y is a linear or branched alkylene group with 1 to 10 C-atoms or a cycloalkyl group with 4 to 14 C-atoms, R<sup>1</sup> is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 6 to 14 C-atoms, R<sup>2</sup> is a linear or branched alkylene group that may contain a carbonyl group with 1 to 8 C-atoms, F is R<sup>1</sup> or -Y-(O-R<sup>2</sup>)<sub>d</sub>-T<sub>e</sub>-[(O-

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$R^2)_b-NHR^3]_c$  with at least one residue  $-Y-(O-R^2)_d-T_e-[(O-R^2)_b-NHR^3]_c$  per molecule,  $R^3$  is a linear or branched alkyl or fluoroalkyl group with 1 to 8 C-atoms or a cycloalkyl or aryl group with 6 to 14 C-atoms or H,  $R^4$  is  $R^1$  or methoxy or ethoxy,  $1 \leq a \leq 10,000$ ,  $0 \leq b \leq 10,000$ ,  $1 \leq c \leq 6$ ,  $0 \leq d \leq 500$ ,  $e$  is 0 or 1,  $0 \leq n \leq 500$ ,  $0 \leq m \leq 100$  where  $m+n$  exceeds 5 and  $x$  is 0, 1, 2, 3, 4, 5 or 6.